MACROECONOMIC FORECAST

Spring 2018

Ministry of Finance of the Republic of Bulgaria

The spring macroeconomic forecast of the Ministry of finance takes into account the more favourable expectations for the development of the world and the European economy compared to the autumn 2017 forecast. The projections for the dynamics of international prices of oil and non-energy commodities are also higher, in particular for 2018.

Meanwhile, Bulgaria's GDP rose by 3.6% in 2017, compared to the expected growth of 4% in the September 2017 forecast. Lower growth was due to higher negative contribution of net export, while domestic demand performed better than expected. GDP growth is projected to accelerate to 3.9% in 2018 with domestic demand continuing to be the main driver. Private consumption will accelerate slightly, backed by improved consumer confidence and a real increase in households' disposable income. At the same time, investment activity will be driven mainly by the increase in public investment. Total export is expected to accelerate due to the lower base in the previous year and the expected favourable dynamics in 2018, which together with the increased domestic demand growth will support the growth in import. As a result, the negative contribution of net export to GDP is expected to increase.

GDP growth rates will remain relatively high over the forecast horizon. Economic activity will slow down slightly to 3.8% in 2019 due to the downward dynamics of domestic demand and will reach 3.7% in the period 2020–2021. Domestic demand (both consumption and investment) will remain the main driver of GDP growth. While investment activity is expected to increase moderately, lower growth of employment and real incomes will result in a slowdown in private consumption growth. The negative contribution of net export to GDP is expected to shrink to around 0.8 pps in 2020 and 2021.

In 2017, the employment growth was higher than expected, but it was strongly influenced by developments in agriculture and didn't lead to a significant revision in our medium-term expectations. According to the latter, limitations from the labour supply and negative demographic trends will result in lower employment growth until it discontinues in 2021. Inflation projections have been also revised upwards for the whole forecasting horizon given the reported dynamics in 2017 and the first two months of 2018, as well as new external assumptions for international prices of food and crude oil. Credit to the private sector will continue to accelerate until 2021, though expectations for its growth rate are now lower compared to the autumn forecast in line with the slower recovery of credit to non-financial corporations.

The main risks to the macroeconomic forecast are still related to the uncertainty about the development of the external environment and the expectations about international prices as well as the unfavourable demographic trends in the country.

1. External Environment

The expectations for the development of the world and the European economy improved compared to the autumn forecast mainly due to better than expected performance in 2017. The growth of the world economy accelerated in 2017 supported by stronger economic activity in both advanced economies and emerging markets. EU GDP growth also increased driven by domestic demand (consumption and investment) and net exports. The expansion of the European economy was broadly-based across EU members as GDP growth surprised on the upside in the largest EU Member States, except in the UK where it was below expectations.

World GDP growth will continue to increase moderately in 2018 supported by stronger economic activity in developing countries and the United States. Meanwhile, GDP growth of the EU will start to slow down due to limited increase in employment. In addition, economic activity in the region could be affected negatively by the uncertainty related to the outcome of the Brexit negotiations. GDP growth of the EU is expected to decelerate over the whole forecasting period.

The assumption for the BGN/USD exchange rate is based on the pegged exchange rate of the local currency vis-à-vis the euro and a technical assumption for the USD/EUR exchange rate. The latter is assumed to remain unchanged over the projection horizon at the average levels for the ten-working-day period ending on the cut-off date. In the current publication, actual daily data was available up until 13.03.2018.

The technical assumptions for the major commodity price indices are based on the expectations of the IMF and the World Bank, available at the time of preparation of the forecast. Given this information, the price of a barrel of Brent crude oil is assumed to rise by 17.6% to an average of USD 64 in 2018 as compared to the 1.5% increase expected in the autumn macroeconomic forecast. These expectations are in line with improved global economy prospects, as well as the production cuts agreement among OPEC member states and geopolitical tension in the Middle East, which pushed up crude oil prices in late-2017 and early-2018. According to the market expectations, the price of Brent will decline by 6.5% in 2019, and continue on the decrease at a slower pace to reach 55.5 USD per barrel at the end of the forecasting horizon.

External assumptions. Difference from the previous forecast.

	Spring forecast 2018				Autumn forecast 2017			Difference from the previous forecast		
	2018	2019	2020	2021	2018	2019	2020	2018	2019	2020
World real GDP (%)	3.9	3.9	3.8	3.7	3.7	3.7	3.7	0.2	0.2	0.0
EU 28 real GDP (%)	2.3	2.1	1.9	1.8	2.0	1.8	1.8	0.3	0.3	0.1
USD/EUR exchange rate	1.23	1.23	1.23	1.23	1.19	1.19	1.19	0.04	0.04	0.04
Oil price, Brent (USD/barrel)	64.0	59.8	57.0	55.5	52.6	53.1	53.7	11.4	6.7	3.3
Non-energy commodity prices in USD (annual percentage change)	5.5	1.1	-0.6	-0.3	0.4	1.2	1.0	5.1	0.0	-1.6

Source: MF, EC, IMF, WB

Non-energy commodity prices are expected to step up by 5.5% on average in 2018. Metal prices will go up by 13% supported by strong demand from China, and food prices – by 2.6%. The increase in prices of non-energy commodities will decelerate to 1.1% in 2019, due to the expected stabilisation in metal prices, and then in 2020 and 2021 they will report a decrease by 0.6% and 0.3%, respectively, mostly in line with the expected lower food prices.

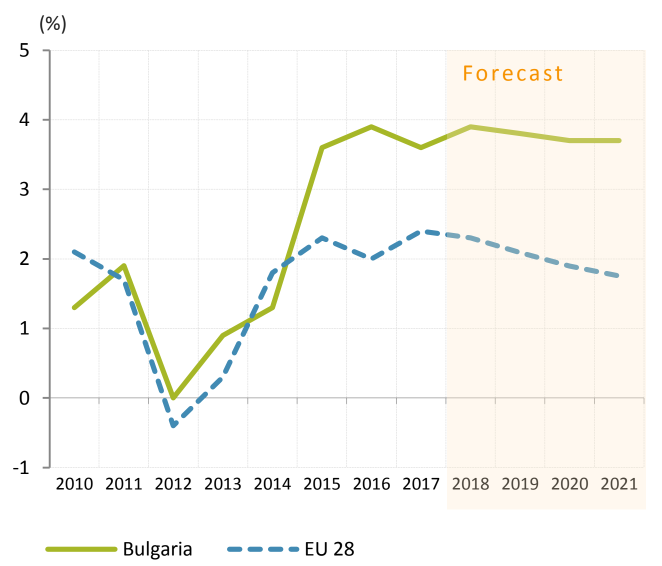
2. Gross Domestic Product

Bulgaria's GDP grew by 3.6% in 2017, while expected growth was 4% as according to the September 2017 forecast. The lower growth was due to higher negative contribution of net export (-1.7 pps), while domestic demand performed better than expected, with a positive contribution of 5.3 pps to GDP growth.

An increase in the consumer confidence indicator and the overall business climate indicator was recorded in the beginning of 2018. Consumers' expectations for the economic situation in the country improved, entrepreneurs' expectations are also favourable, especially in construction and services sectors.

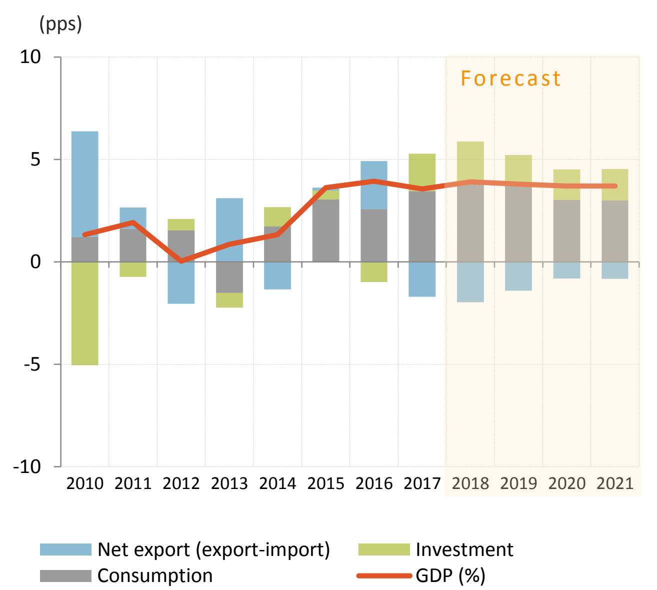
GDP is expected to increase by 3.9% in 2018, as growth will continue to be driven by domestic demand. Final consumption will increase by 5% and the growth of fixed capital formation is expected to reach 10.1%. The projected increase in public consumption and investment will have a major contribution to the growth in domestic demand. Private consumption will slightly accelerate to 4.9%, supported by improved consumer confidence, continued employment growth, and a real increase in households' disposable income. The forecasts of international institutions are for a negligible slowdown in the economic activity in the EU and acceleration of global growth. This will result in stable pace of increase of external demand and the growth of export of goods will remain close to that of the previous year. At the same time, due to the low

Real GDP growth



Source: Eurostat, MF

GDP growth and contribution by main components



Source: NSI, MF

base in 2017 and the expected favourable dynamics in the current year, export of services is expected to increase. Higher domestic demand and export will support the growth of import. As a result, in 2018, the negative contribution of net export to GDP is expected to be higher compared to 2017 and to reach 2 pps.

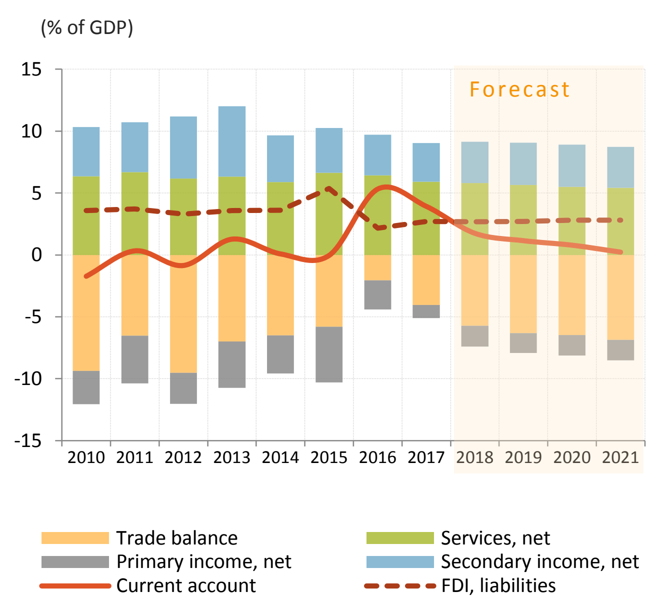
GDP growth will slightly slow down to 3.8% in 2019 as a result of the downward trend in domestic demand driven by the lower increase in public investment. The growth of gross fixed capital formation is expected to decelerate to 6.6%. Private consumption will continue to increase supported by higher incomes and credits to households. However, it will slightly slow down to 4.8% compared to 2018 due to more moderate increase in households' real disposable income. The expected weaker domestic demand will result in lower import growth. Thus, the negative contribution of net export will decrease to 1.4 pps.

Economic growth will reach 3.7% over the period 2020–2021. As in the previous forecast, domestic demand (both consumption and investment) will remain the main GDP growth driver. While the investment activity is expected to increase moderately, the more limited increase in employment and real incomes will result in a slightly lower growth of private consumption. The negative contribution of net export is expected to remain around 0.8 pps in 2020 and 2021.

3. Current Account

In 2017, a lower surplus on the current account of the country was reported (3.9% of GDP), as a result of unfavourable price dynamics and higher growth of real import compared to export.

Current account and FDI



Source: BNB, MF

The expectations in the current forecast, as well as in the September 2017 forecast, are for a slowdown in international prices, especially in oil prices in 2018, along with depreciation of the dollar against the euro. This will result in lower deflators and better terms of trade (i.e. the export deflator will be higher than that of import). Positive terms of trade dynamics are expected to continue until the end of the projection horizon.

Regarding growth in real terms, the export increase is projected to continue in 2018 with a slightly higher pace as a result of the expected positive growth in services export. After that, the rate of growth will slow down gradually, in line with the external demand dynamics. Domestic demand improvement and raw materials needed for the export-oriented industries will support the import increase in 2018, after which a gradual deceleration in the import growth is expected in the following years.

Given the price and real growth dynamics, the nominal growth rates of import and export will come closer in 2018, but import will remain stronger. The balance of trade in goods and services will be almost balanced. The expected acceleration in gross operating surplus, along with the gradual increase in FDI, will result in an increase in the investment income paid to non-residents, an increase in the primary income deficit and deterioration in the overall balance on Incomes. Taking into account the dynamics of the individual articles, the ratio of current account balance to GDP will decrease to 1.7% in 2018.

In the period 2019-2021, as in the previous forecast, the nominal increase in import of goods is expected to outstrip the growth of export, which will lead to an increase in the trade deficit. The negative balance will reach 6.8% of GDP in 2021. The surplus on services will increase in nominal terms but at rates below that of GDP growth. The latter will lead to a gradual decrease in the ratio to 5.4% at the end of the projection horizon. Thus, the overall balance of trade in goods and services will be a major driver of the downward dynamics of the current account. With the higher number of projects signed and payments made as part of the 2014-2020 programming period, the incoming transfers to the General government sector will also speed up. The increase is expected to be offset by the change in the Primary income and the overall balance of the Incomes will remain almost unchanged in the range of 3.3-3.4% of GDP.

The current account will remain at a surplus throughout the projection period, but the positive balance will decrease to 0.2% of GDP in 2021.

4. Labour Market and Incomes

In 2017, the employment growth was stronger than the expected in the autumn forecast which was coupled with a higher increase in the labour force. These developments have not influenced significantly expectations in the medium-term, as they reflected employment dynamics in agriculture, the latter being very volatile.

In the beginning of 2018, expectations for labour market developments remained favourable. The assessment of the business for the near-term employment dynamics improved in industry and construction, as well as in services. At the same time, the shortage of labour seen as an obstacle for the business activity in the three sectors under survey steadily exceeded their 2008 levels in 2017. Thus, the high demand of labour and limitations coming from the labour supply determined the expected slowdown of the employment growth in the medium-term.

In 2018, the number of employed is expected to increase by 0.6%[1], after the significant growth of 1.8% reported in the previous year. The slowdown will be largely due to agriculture. The high share of agricultural employment compared to the EU average, given the further downward EU trend, together with the restructuring of the agricultural farms towards bigger ones which hire employees, determined the expected decrease in the number of self-employed in the sector. In this way, the employment growth in 2018 will be supported by the higher labour demand in industry and services. In line with the domestic demand increase, the employment development in the service sector is expected to improve, with some effect com-

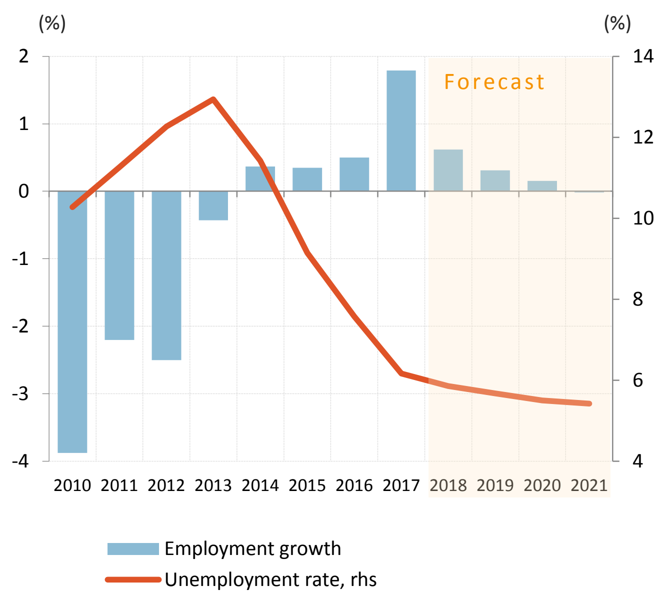
[1] According to ESA 2010 definition.

ing from the weaker employment performance in 2017. The stable export growth will sustain job creation in manufacturing and the stabilized number of employed in construction in 2017, along with expected higher economic activity in the sector in 2018 suggest construction to report one of the highest employment growths among industries. The unemployment rate will decrease to 5.9% in 2018 and the participation rate of population will increase slowly compared to 2017 due to the gradual decrease of the available labour resources to meet the demand for labour.

The negative demographic development and its implication on the labour supply will restrict the employment growth to 0.3 and 0.2% in 2019 and 2020, and in the end of the forecasting horizon employed number is expected to stabilize tending to decline. The unemployment rate will decrease to reach 5.4% in 2021. The labour force is expected to start decreasing beyond 2020 but the participation rate of population will keep the upward trend, albeit at a slower pace.

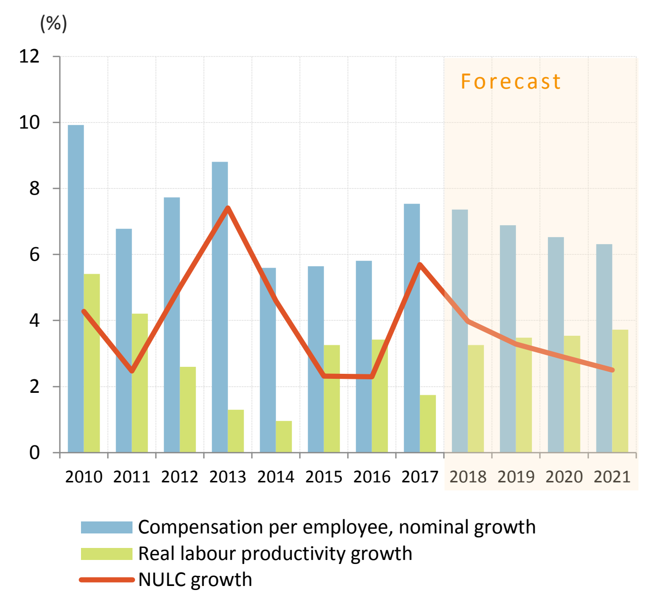
Medium-term expectations for labour incomes are broadly unchanged relative to the autumn forecast, though with a slightly upward revision in 2018. Compensation per employee rose by 7.5% in 2017, up from previously expected rate of 6% on the account of the yoy acceleration reported in the second half of the year. Given this higher base effect, wage growth in 2018 is set above fall expectations, as well, but will be close to its 2017 pace of increase. Compensation per employee is expected to grow by a nominal 7.4% in 2018 supported by the expected higher trend in productivity, inflation and more substantial upward employees' dynamics. Furthermore, the implementation of higher minimum wage (up by 10.9%), social security contributions for pension insurances (up by 1 pp) and the envisaged increases in priority public sector wages would have additional effects on the 2018 average income growth. However, the contribution of public sector is expected to remain lower as compared to 2017, while the private sector wage dynamics will accelerate. This acceleration will be driven by the higher labour demand in both services and indus-

Employment growth and unemployment rate



Source: NSI, MF

Labour incomes, productivity and unit labour costs (ULC)



Source: NSI, MF

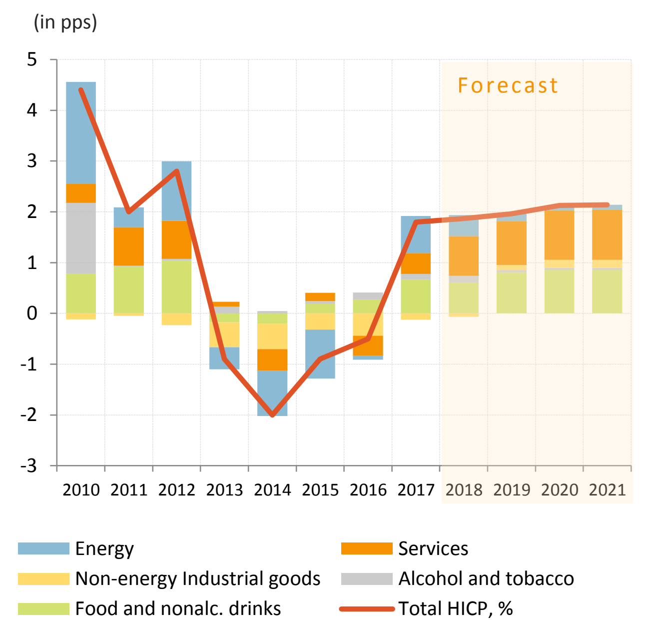
try in the context of significant labour shortages reported in 2017. Afterwards, compensation per employee is projected to decelerate gradually to 6.3% in 2021 in line with the expected moderate employment increases and smaller effects from social security contributions.

In the medium term, real labour productivity dynamics have not been significantly modified from the autumn 2017 forecast and it is expected to increase at an annual average rate of 3.5%. Overall productivity growth decelerated to 1.7% in 2017, nevertheless, it is not considered to impose limits to the potential for further economic expansion as the reported slowdown resulted mainly from the negative impact of agriculture. These lower productivity dynamics also led to a stronger rise in unit labour costs, which is expected to unwind with no negative impact on the country's competitive perspectives. The projected productivity and income developments will result in a gradual increase in the share of compensation of employees in gross value added. The latter corresponds to a moderate nominal unit labour costs growth at an annual average of 3.2% in 2018-2021 and will reflect similar productivity and income dynamics at the end of the forecasting horizon.

5. Inflation

The annual average HICP inflation in 2017 was 1.2%, being only 0.1 pp higher than the expected in the autumn forecast, while the end-of-period inflation rate reached 1.8% yoy. Current HICP dynamics and latest assumptions for the major commodity price indices led to an upward revision of the inflation forecast. The annual average inflation rate in 2018 is expected to be 1.8%, while the end-of-period inflation rate will reach 1.9%. The increase in services prices is expected to accelerate to 2.5% backed by the stronger domestic demand. The expected increase in domestic food prices will also lead to higher catering services prices. Furthermore, the anticipated increase in international crude oil prices will result in higher energy prices, thus domestic prices for transport fuels will rise by 5.1% at the end of 2018. Prices of non-energy industrial goods will continue on the decline, but at a slower rate, and given the expected increase in services prices, the positive contribution of core inflation[2] to the end-of-period inflation will strengthen.

End-of-period HICP Inflation Rate
contributions by main components



Source: NSI, MF

The envisaged hike in excise stakes on tobacco in 2018 is expected to contribute by 0.1 pp to the change in the total index at the end of the year.

[2] The total index excluding unprocessed food and energy.

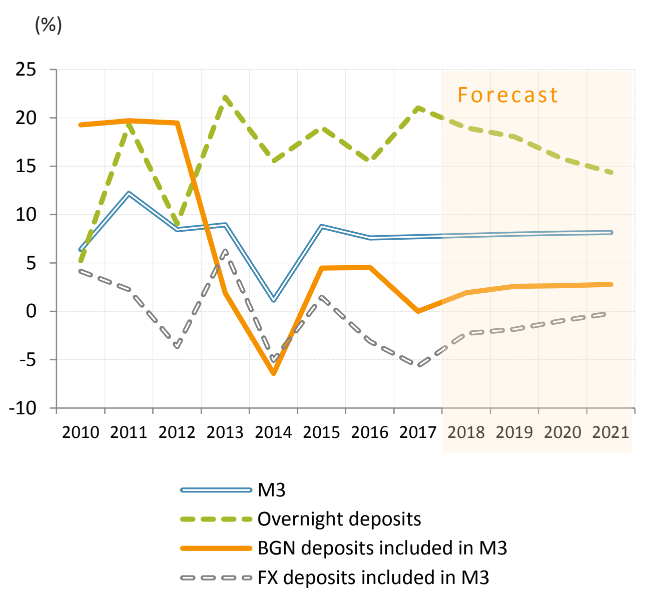
The HICP index is projected to go up by 2.0% on average in 2019, with end-of-period inflation expected to report the same increase. The expected acceleration will be due to the rise in core inflation under the influence of higher domestic demand. The annual average inflation rate is expected to slightly accelerate to 2.1% in 2020 and 2021, with core inflation continuing to strengthen, while the increase in prices of transport fuels is expected to slow down until the end of the projection horizon, given the expected dynamics of international crude oil prices.

6. Monetary sector

Slower than expected recovery of credit to non-financial corporations and the higher contribution of credit to households which was positively affected by loans extended under the National Programme for Energy Efficiency of Multi-Family Residential Buildings (together with a slower pace of repayment by the government of these funds in 2017), led to a downward revision of the expectations for private sector claims compared to the September macroeconomic forecast.

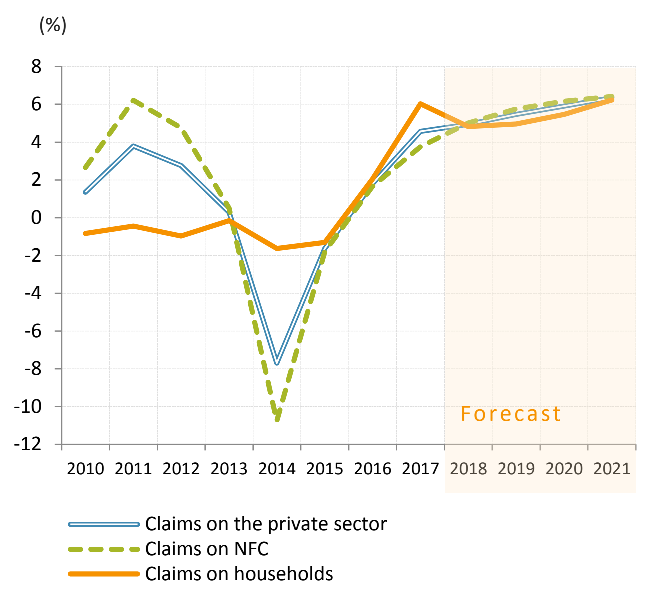
Private sector credit growth accelerated to 4.8% yoy at the end of 2017 vs. 1.5% yoy at end of 2016. The tendency of accelerating growth of regular loans along with a larger reduction in bad and restructured loans from 2016 remained, resulting in a relative slowdown in the private sector credit growth. The shrinking of bad and restructured loans was more pronounced for loans to non-financial corporations, which increased by 1.7% yoy. The lower growth rate of corporate credit was also influenced by the ongoing process of banks' balance sheets optimization and credit risk reduction through loan sales and write-offs. The upward dynamics of credit to households were more pronounced, up by 6% yoy at the end of 2017 vs. 2% yoy a year earlier. Consumer loans and mortgages grew by 5.8% yoy and 7.4% yoy, respectively, in line with the acceleration in

Money supply and deposits



Source: BNB, MF

Claims on the private sector



Source: BNB, MF

the real growth rate of households' final consumption, as well as the continuing upward trend in house prices.

Money supply growth is expected to accelerate slightly over the projection horizon given the current developments and expectations for a continuing increase in the foreign reserves, as well as deposits in the banking system. Money supply will grow by 7.9% yoy at the end of 2018 vs. 7.7% yoy in 2017. Broad money growth rate will accelerate to 8% yoy and 8.1% yoy, by the end of 2019 and 2020, respectively. During the forecasting horizon, the growth rate of overnight deposits will slow down on the account of a slight acceleration in the growth of deposits in national currency and a slowdown in the decline in foreign currency denominated deposits. This trend will reflect a gradual decline in economic agents' preferences for higher liquidity.

In the period 2018–2021, credit to private sector will gradually accelerate in line with projections for relatively sustainable growth of private consumption and investment, as well as expectations for relatively sustained, albeit decelerating, growth in employment and income. Claims on the private sector are expected to increase by 4.9% yoy at the end of 2018 and their growth will accelerate to 5.5% yoy at end-2019, and the gradual acceleration will continue until the end of the forecasting horizon. Some limitations on the growth rate of private sector credit over the forecast period could be expected from the downward trend in bad and restructured loans, but this effect will decrease over time. Claims on non-financial corporations will have a higher contribution in 2018, reaching annual growth of 5%. The acceleration over the previous year will be in line with the projected higher investment growth. In the following years, their growth rate will gradually increase and will reach 5.7% yoy and 6.2% yoy in 2019 and 2020, respectively. The growth of claims on households will slow down to 4.8% yoy in 2018. In 2019, they will increase by 5% yoy and by the end of the forecasting horizon their growth will accelerate to 6.2% yoy. •

7. Risks

The main risks to the macroeconomic forecast are related to the uncertainty about the external environment developments and expectations for international prices as well as the unfavourable demographic trends in the country.

The downside risks to the economic growth stem mainly from the external demand. The EU growth may slow more than expected due to factors such as the uncertainty surrounding the forthcoming Brexit, less favourable global financing conditions, strengthening of inward-looking policies in some countries, especially in the USA, rise in geopolitical tensions and stronger than expected slowdown in the Chinese economy. The weaker economic activity of our main trading partners in the EU would have a negative impact not only on Bulgaria's export but also on domestic demand, both by limiting the growth of consumption and by lower investment activity.

In terms of growth drivers, the main risk for the labour market forecast are related to the demographic developments. Due to the fast decrease during the last years in the numbers of unemployed and discouraged who constitute the potential source of employment in the context of decrease in the working-age population, the forecast envisages a gradual discontinuation of the labour force increase and a decrease in the end of the forecasting horizon. The demographic influence, however, could be stronger than the expected, resulting in labour force decline as early as 2018. This will restrict the growth of both employment and economic activity. In a situation of weaker employment dynamics, an eventual lower productivity increase will also curb growth in the medium and long-term. Such a tendency coupled with the upward wage dynamics might put additional pressure on the unit labour costs' increase and thus limit the economy's competitiveness.

Risks to the inflation forecast are mainly related to commodity price developments. Given the current juncture on the international crude oil market, upside risks stem from any unanticipated supply disruption due to geopolitical tensions in some of major oil producing countries as well as stronger than expected increase in global demand. A possible downward impact on prices could be expected from a pic-up in U.S. inventories and a potential non-compliance by oil producers to their agreed production cuts. •

MAIN ECONOMIC INDICATORS	ACTUAL DATA*		PROJECTIONS			
	2016	2017	2018	2019	2020	2021
International Environment						
World real GDP (%)	3.2	3.7**	3.9	3.9	3.8	3.7
EU28 real GDP (%)	2.0	2.4	2.3	2.1	1.9	1.8
USD/EUR exchange rate	1.11	1.13	1.23	1.23	1.23	1.23
Crude oil, Brent (USD, bbl)	44.0	54.4	64.0	59.8	57.0	55.5
Non-energy commodity prices (in USD, %)	-2.6	4.9	5.5	1.1	-0.6	-0.3
Gross Domestic Product						
Nominal GDP (mln BGN)	94 130	98 631	104 674	111 145	117 890	124 919
Real GDP growth (%)	3.9	3.6	3.9	3.8	3.7	3.7
Consumption	3.3	4.5	5.0	4.9	3.9	3.8
Gross fixed capital formation	-6.6	3.8	10.1	6.6	6.9	7.0
Export of goods and services	8.1	4.0	4.9	4.9	4.7	4.6
Import of goods and services	4.5	7.2	8.1	7.0	5.9	5.8
Labour Market and Prices						
Employment growth (SNA, %)	0.5	1.8	0.6	0.3	0.2	0.0
Unemployment rate (LFS, %)	7.6	6.2	5.9	5.7	5.5	5.4
Compensation per employee (%)	5.8	7.5	7.4	6.9	6.5	6.3
GDP deflator (%)	2.2	1.2	2.1	2.3	2.3	2.2
Annual average HICP inflation (%)	-1.3	1.2	1.8	2.0	2.1	2.1
Balance of Payments						
Current account (% of GDP)	5.3	3.9	1.7	1.2	0.8	0.2
Trade balance (% of GDP)	-2.0	-4.0	-5.7	-6.3	-6.5	-6.8
Foreign direct investments (% of GDP)	2.2	2.7	2.7	2.7	2.8	2.8
Monetary Sector						
Money M3 (%)	7.6	7.7	7.9	8.0	8.1	8.1
Claims on enterprises (%)	1.6	3.8	5.0	5.7	6.2	6.4
Claims on households (%)	2.0	6.0	4.8	5.0	5.5	6.2

** The forecast is based on statistical data up to 14 March 2018, unless noted otherwise*
*** Estimate*

Source: IMF, EC, WB, MF, NSI, BNB